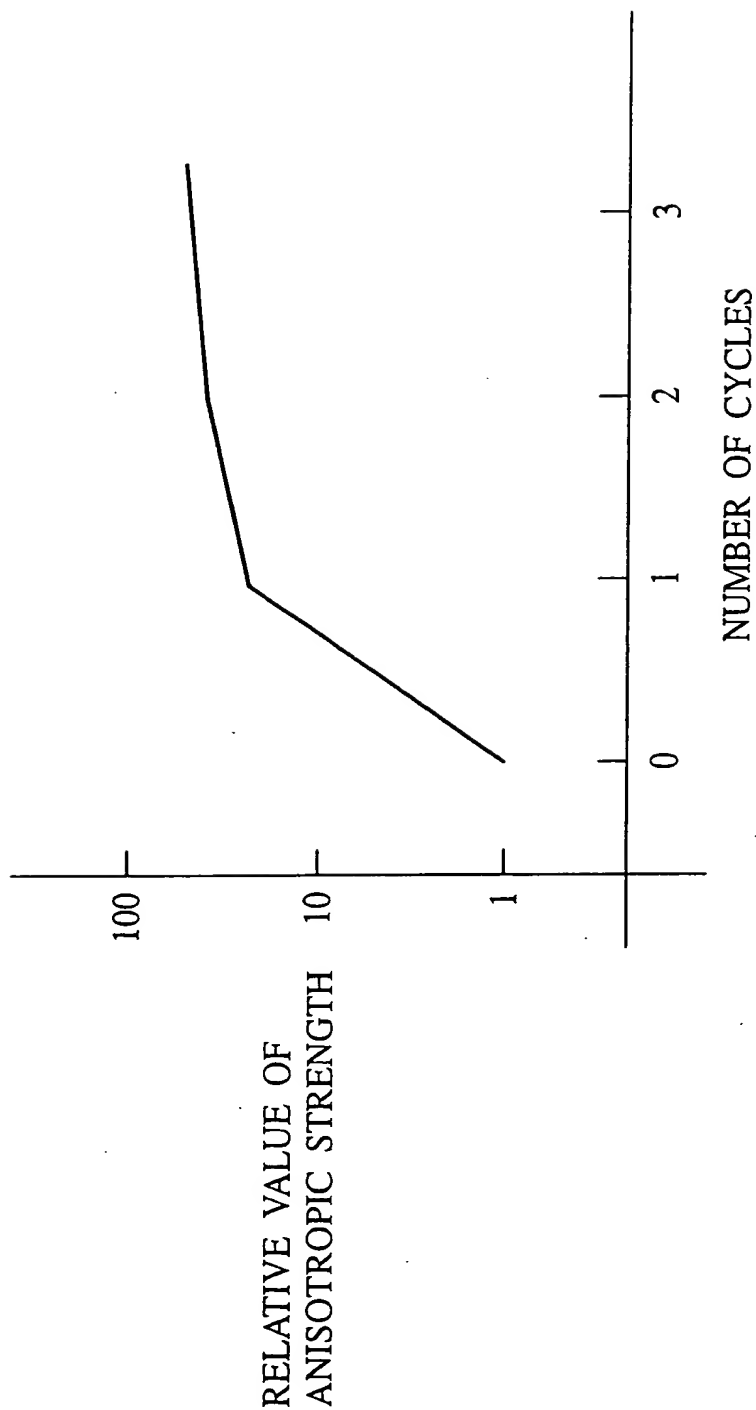
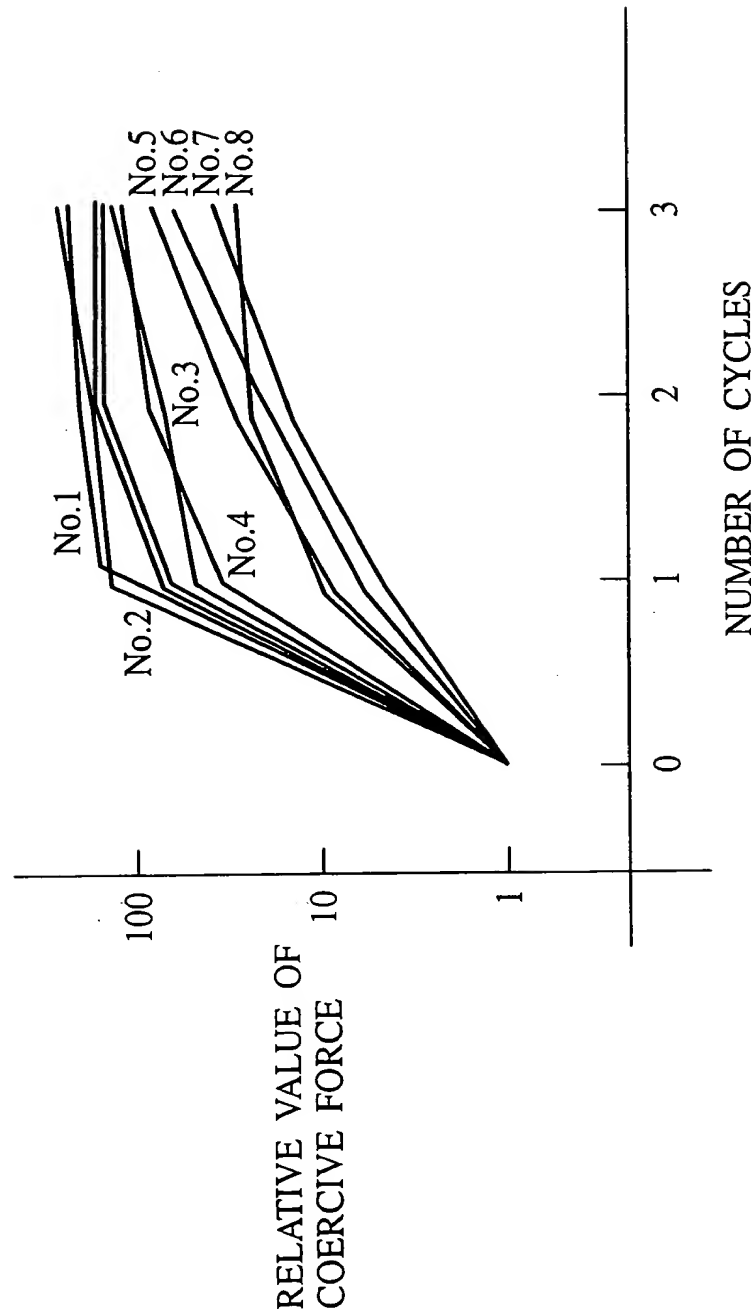


FIG.1



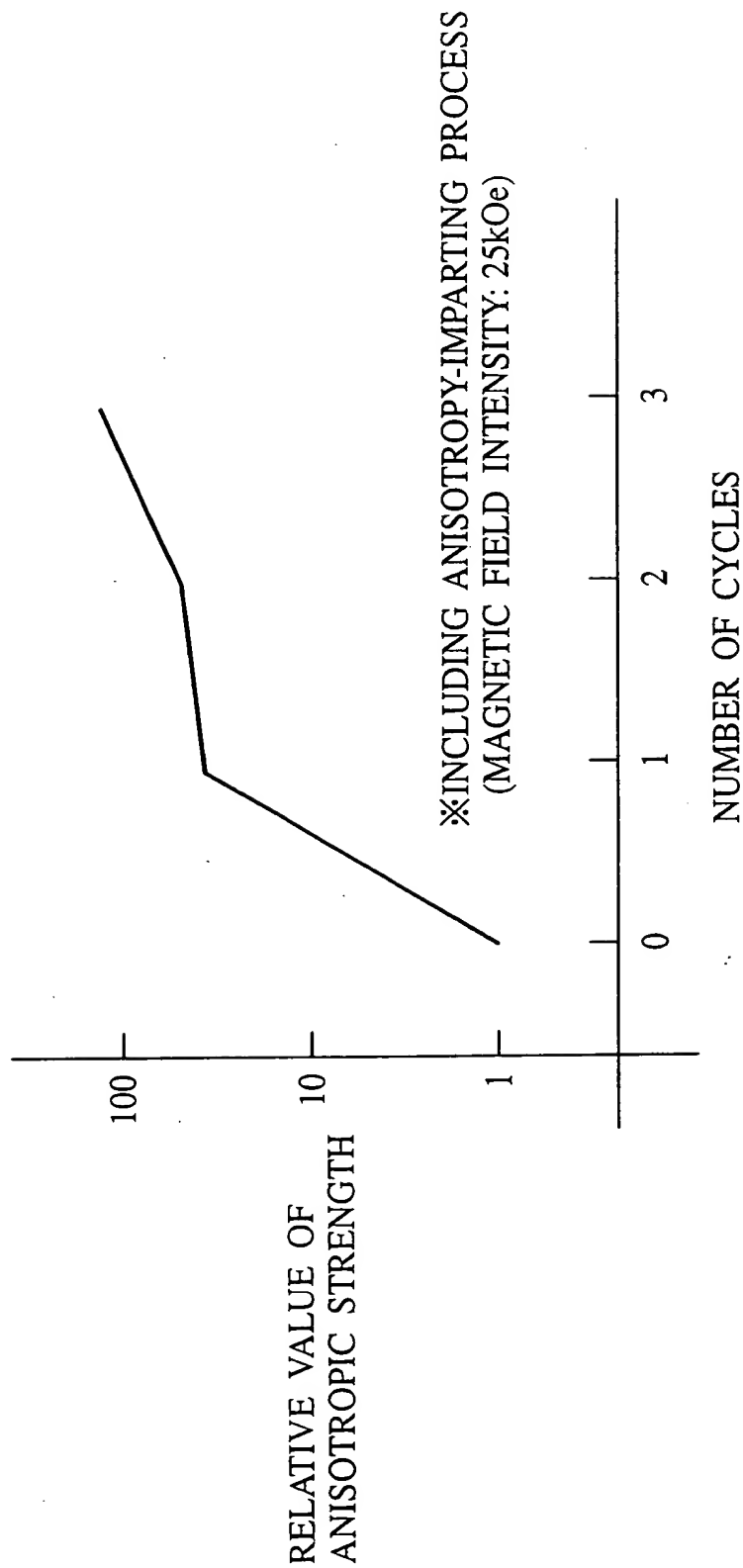
RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF ANISOTROPIC STRENGTH  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>4</sub>Fe<sub>69</sub>Co<sub>5</sub>Nb<sub>3</sub>B<sub>19</sub>)

FIG.2



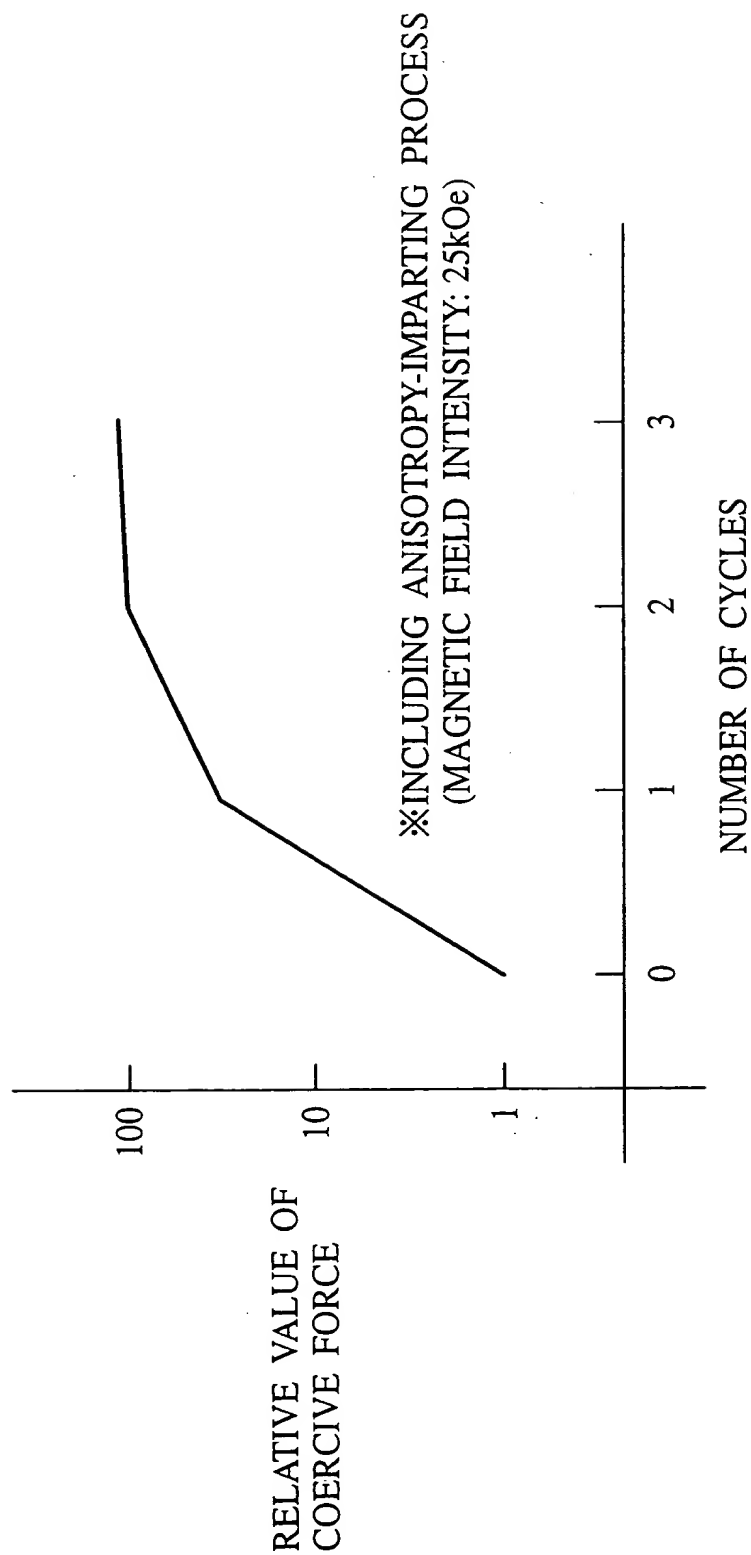
RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF COERCIVE FORCE  
(VARIOUS ANISOTROPIC EXCHANGE SPRING MAGNETS IN TABLE 1)

FIG.3



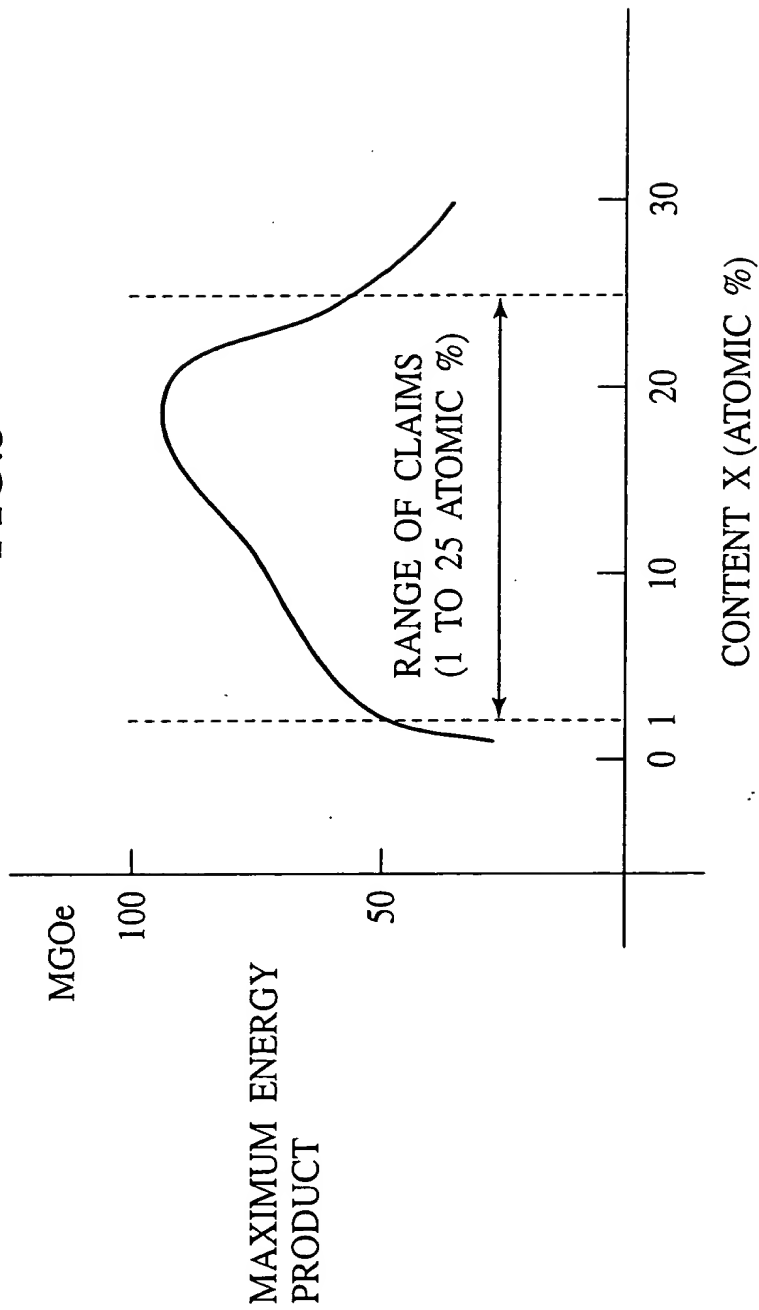
RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF ANISOTROPIC STRENGTH  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>4</sub>Fe<sub>68</sub>Co<sub>5</sub>Nb<sub>3</sub>B<sub>20</sub>)

FIG.4



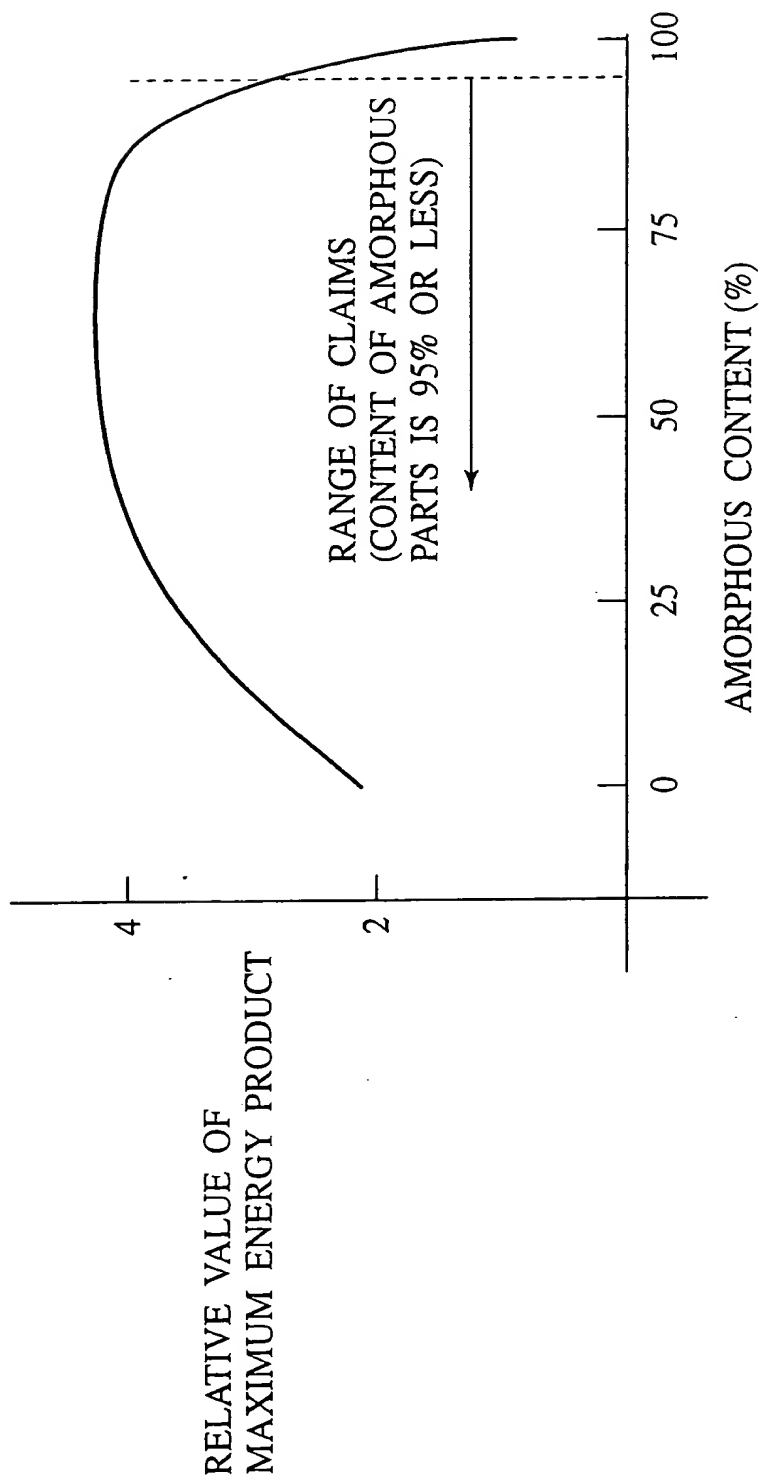
RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF COERCIVE FORCE  
(COMPOSITION OF MAGNET MATERIALS:  $\text{Nd}_4\text{Fe}_{68}\text{Co}_5\text{Nb}_3\text{B}_{20}$ )

FIG. 5



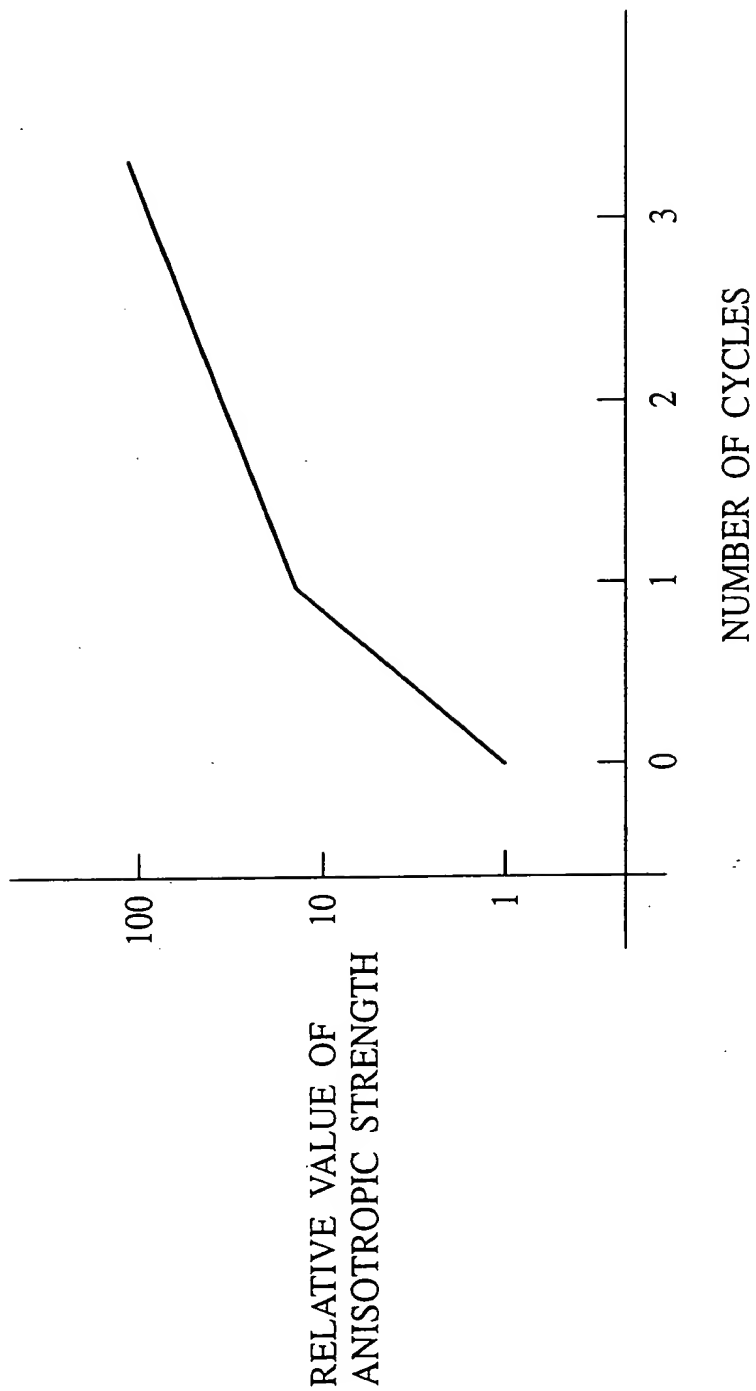
RELATION BETWEEN CONTENT X  
AND MAXIMUM ENERGY PRODUCT  
(COMPOSITION OF MAGNET MATERIALS:  $\text{Nd}_4\text{Fe}_{88-x}\text{Co}_5\text{Nb}_3\text{B}_x$ )

FIG.6



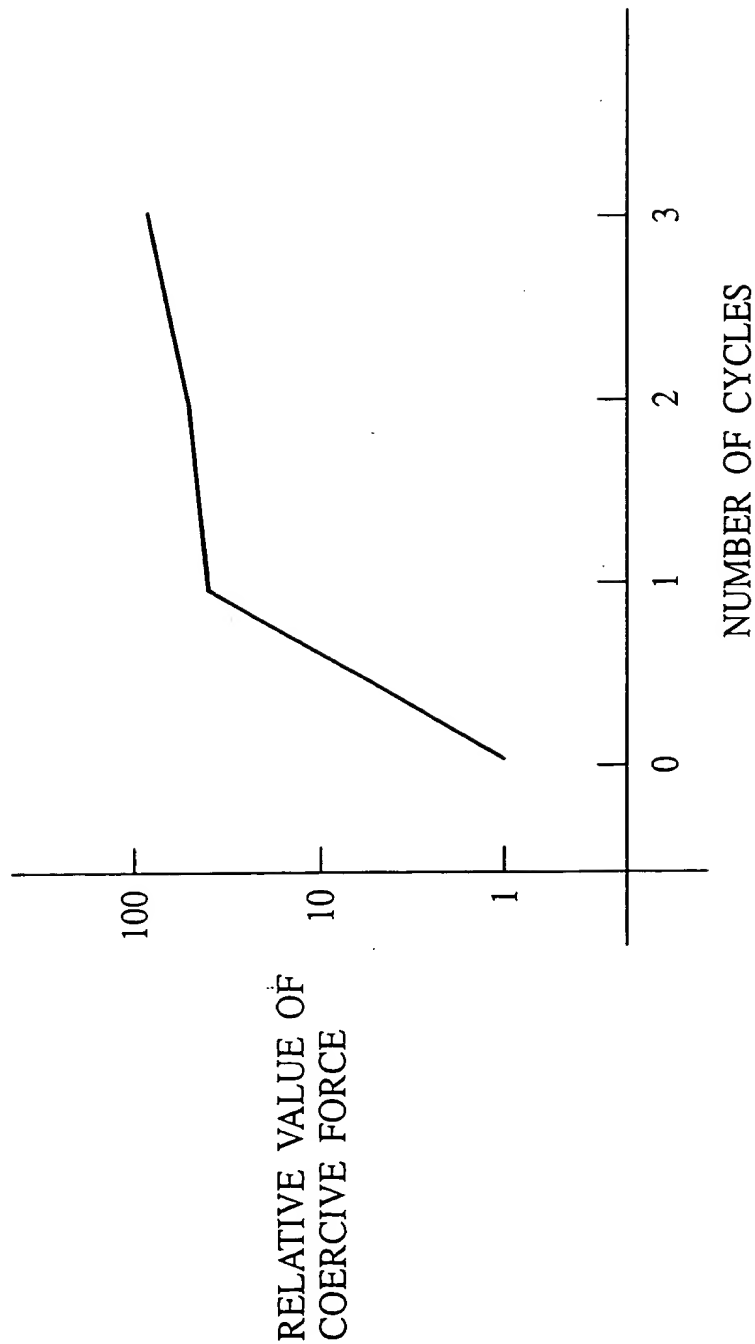
RELATION BETWEEN AMORPHOUS CONTENT AND  
RELATIVE VALUE OF MAXIMUM ENERGY PRODUCT  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>4</sub>Fe<sub>69</sub>Co<sub>5</sub>Nb<sub>3</sub>B<sub>19</sub>)

FIG.7



RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF ANISOTROPIC STRENGTH  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>9</sub>Fe<sub>75</sub>Co<sub>8</sub>V<sub>2</sub>B<sub>6</sub>)

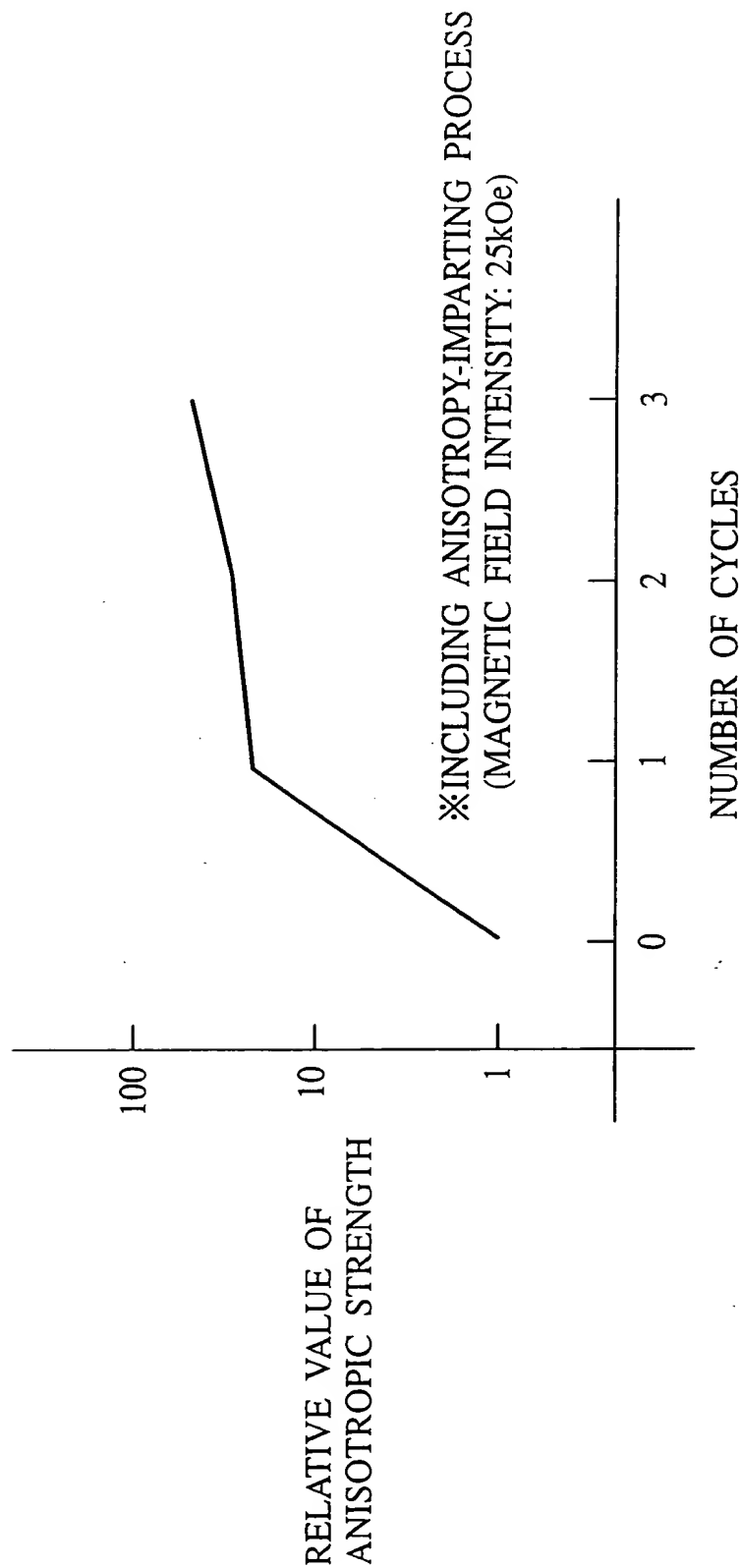
FIG.8



RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF COERCIVE FORCE  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>9</sub>Fe<sub>75</sub>Co<sub>8</sub>V<sub>2</sub>B<sub>6</sub>)

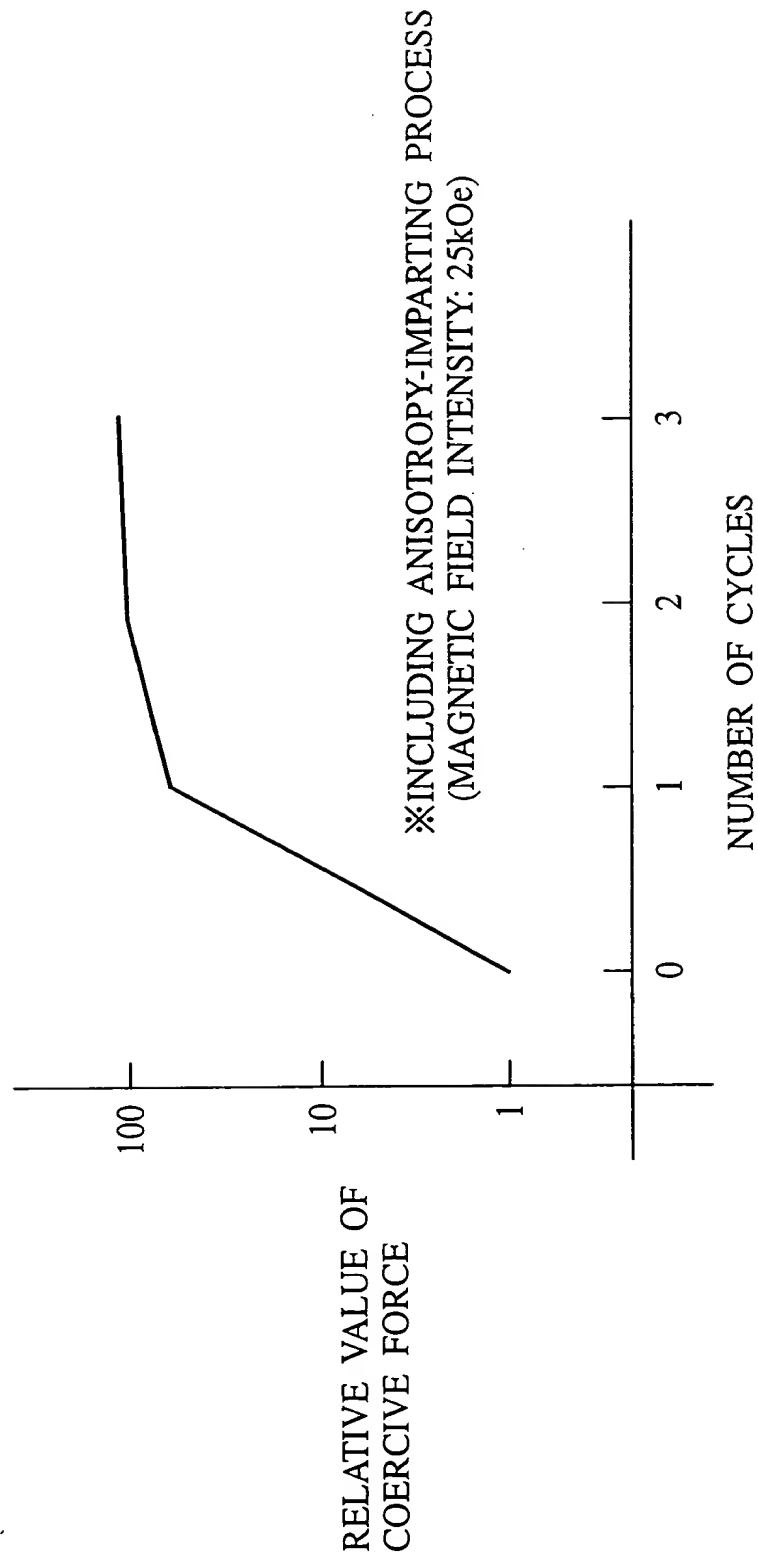


FIG.9



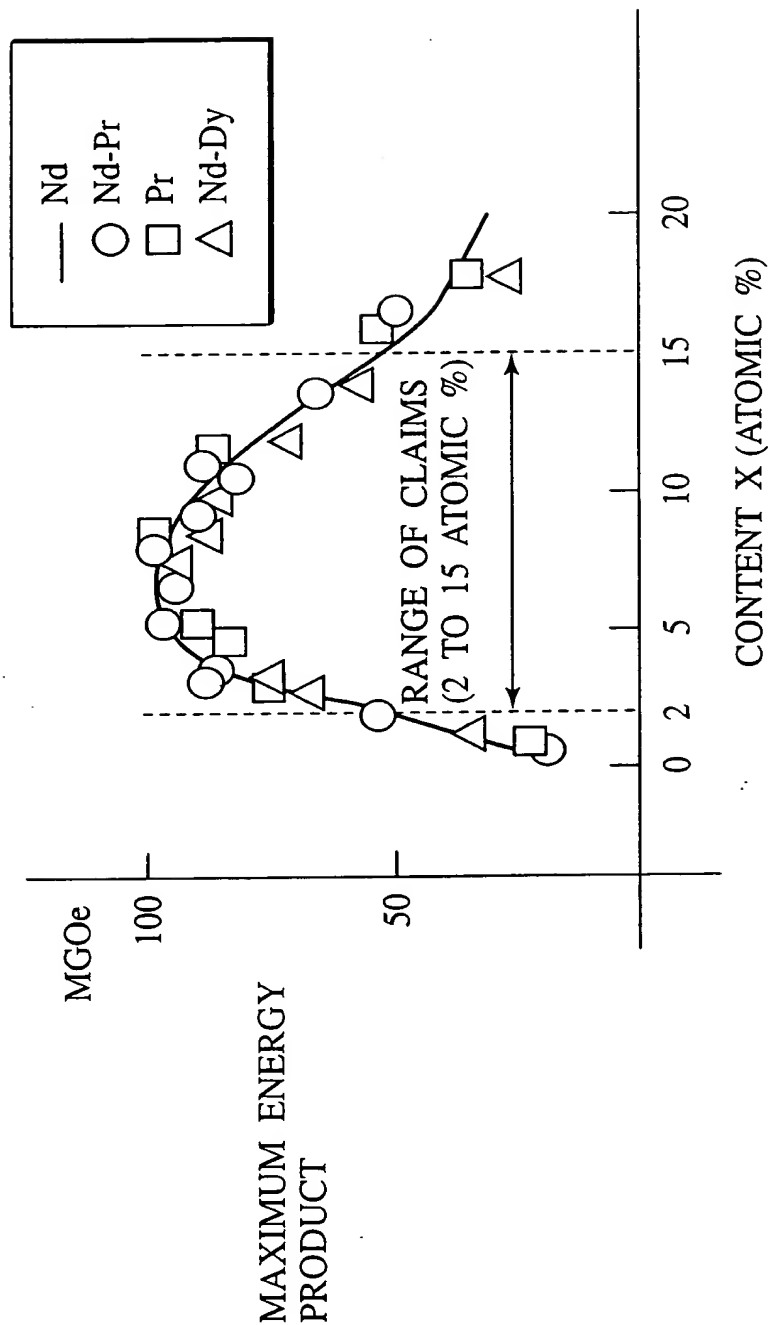
RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF ANISOTROPIC STRENGTH  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>8</sub>Fe<sub>76</sub>Co<sub>8</sub>V<sub>2</sub>B<sub>6</sub>)

FIG.10



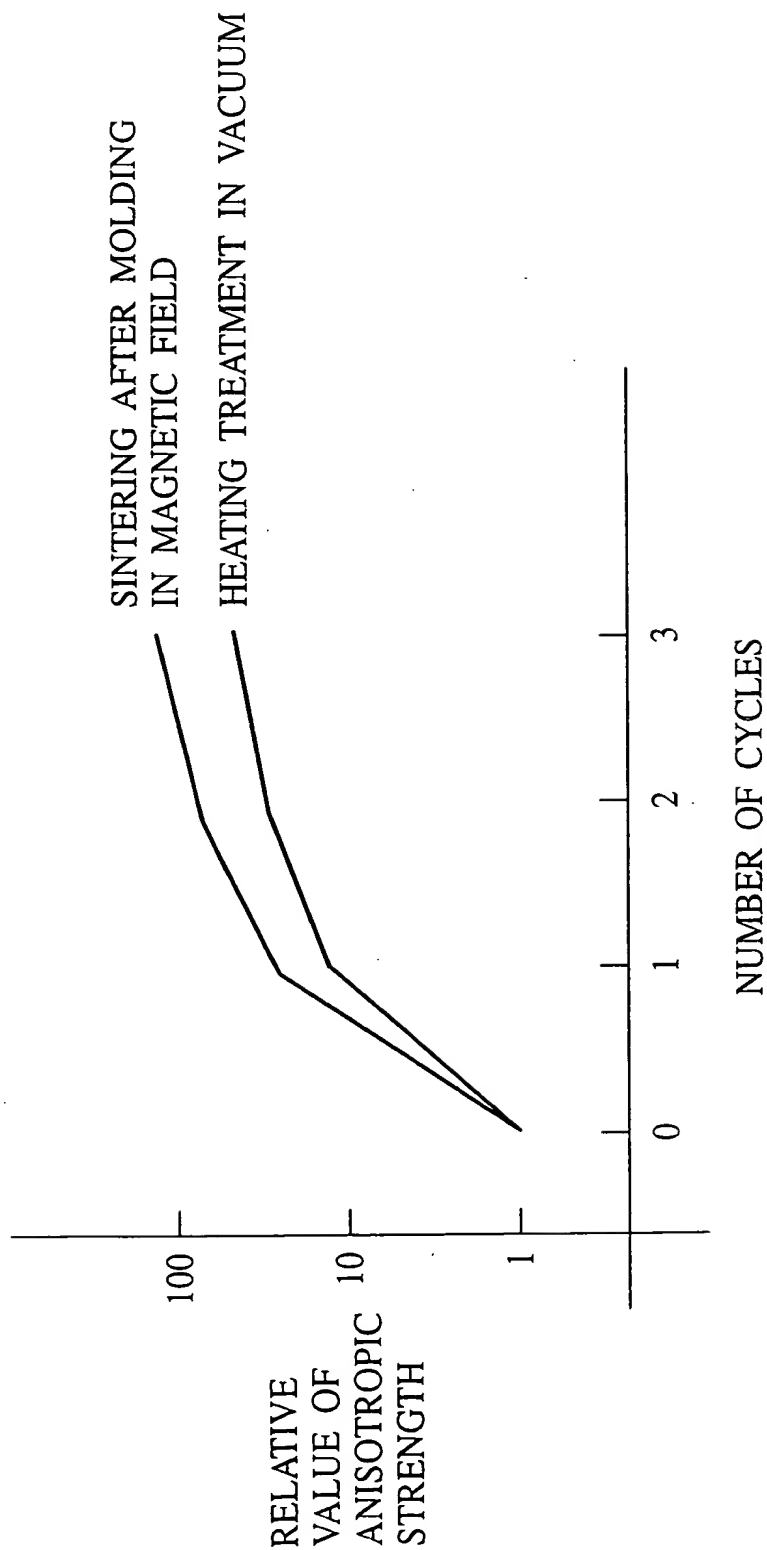
RELATION BETWEEN NUMBER OF CYCLES AND  
RELATIVE VALUE OF COERCIVE FORCE  
(COMPOSITION OF MAGNET MATERIALS: Nd<sub>8</sub>Fe<sub>76</sub>Co<sub>8</sub>V<sub>2</sub>B<sub>6</sub>)

FIG.11



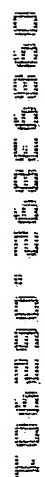
RELATION BETWEEN CONTENT X  
AND MAXIMUM ENERGY PRODUCT  
(COMPOSITION OF MAGNET MATERIALS:  $\text{Nd}_x\text{Fe}_{84-x}\text{Co}_8\text{V}_2\text{B}_6$ )

FIG.12



COMPARISON OF NUMBER OF CYCLES AND RELATIVE VALUE OF ANISOTROPIC STRENGTH WHEN CRYSTALLIZATION TREATMENTS ARE DIFFERENT (COMPOSITION OF MAGNET MATERIALS:  $\text{Nd}_{70}\text{Fe}_{20}\text{Co}_8\text{V}_2\text{B}_6$ )

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FIG.14

No.	PRESENCE OR ABSENCE OF ANISOTROPY	MAIN PERMANENT MAGNET MATERIALS	MAIN SOFT MAGNETIC MATERIALS
1	PRESENT	Nd-Fe-B-BASED MATERIALS	Fe, Fe-B, Fe-C, Fe-Co
2	PRESENT	Sm-Fe-N-BASED MATERIALS	Fe, Fe-N, Fe-Co
3	PRESENT	Sm-Fe-N-B-BASED MATERIALS	Fe, Fe-N, Fe-B, Fe-Co
4	PRESENT	Nd-Fe-B-BASED MATERIALS TbCu <sub>7</sub> type	Fe, Fe-B, Fe-Co
5	PRESENT	Sm-Fe-N-BASED MATERIALS TbCu <sub>7</sub> type	Fe, Fe-N, Fe-Co
6	PRESENT	Sm-Co-BASED MATERIALS	Fe, Fe-Co, Co
7	PRESENT	Sm-Co-B-BASED MATERIALS	Fe, Fe-B, Fe-Co, Co
8	PRESENT	Ba Fe <sub>12</sub> O <sub>19</sub> BASED MATERIALS Sr Fe <sub>12</sub> O <sub>19</sub> BASED MATERIALS	Mn-Zn-BASED FERRITE Ni-Zn-BASED FERRITE Fe <sub>3</sub> O <sub>4</sub> -BASED FERRITE